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EXAMINER
MATTIS, JASON E

ART UNIT	PAPER NUMBER
2416	

NOTIFICATION DATE	DELIVERY MODE
12/10/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/519,384	LINDEMANN, STIG
	Examiner	Art Unit	
	JASON E. MATTIS	2416	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 September 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>16-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>16-30</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This Office Action is in response to the Amendment filed 9/5/08. Due to the

amendment, the previous specification objections have been withdrawn. Also due to

the amendment, the previous 112 second paragraph rejections have been withdrawn.

Claims 1-15 have been cancelled. Claims 16-30 are currently pending in the

application.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

3.   Claims 16-28 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by

Kostadinov (U.S. Pat. 7032045 B2).

     With respect to claim 16, 26, and 30, Kostadinov discloses an adapter

including a storage medium having instructions stored thereon for performing a method

of transmitting and receiving control data from a field bus network where data is being

exchanged according to a specific field bus protocol **(See the abstract, column 5 lines**

1-20, and Figure 2 of Kostadinov for reference to an actuator 120, which is a field bus adapter, executing software instructions stored a memory to perform a method of transmitting and receiving control data according to a field bus communications protocol). Kostadinov also discloses a transmitter transmitting data to the field bus network and a receiver receiving data from the field bus network **(See column 5 lines 1-25 and Figure 2 of Kostadinov for reference to the actuator 120 including a communication interface that comprises a transmitter and receiver to both transmit and receive signals over the bus 110)**. Kostadinov further discloses a protocol detector detecting a field bus protocol between a number of predefined field bus protocols and setting up the receiver and the transmitter to communicate according to the detected field bus protocol **(See column 7 lines 36-55 of Kostadinov for reference to the actuator using processor 210 to identify which field bus communications protocol of a set of communications protocols known to the actuator 120 is being used to encode signals on the bus 110)**. Kostadinov also discloses a means for receiving data from the field bus, a means for determining if the received data complies with predefined characteristics stored in a database with the characteristics uniquely identifying data of only one of the number of predefined field bus protocols, and a means for setting up the receiver and transmitter to communicate according to the one protocol if the received data complies with the characteristics **(See column 8 lines 6-56, column 9 lines 40-61, and Figure 5A of Kostadinov for reference to receiving a bus signal in step 501, for reference to determining if the bus signal complies with a predefined format and length stored in a table with the**

format and length uniquely identifying only one of the predefined field bus
protocols in steps 505, 510, and 515, and for reference to setting up the actuator
120 to process signals according to the identified protocol if the bus signal
complies with the format and length in step 520).

  With respect to claims 17 and 27, Kostadinov discloses the adapter detecting
two predefined field bus protocols with the protocol detector comprising a means for
receiving data from the field bus, a means for determining if the data complies with
predefined characteristics stored in a database uniquely identifying data of a first of the
two predefined field bus protocol, a means for setting up the receiver and the transmitter
for communicating according to the first predefined field bus protocol if the data
complies with the characteristics, and a means for setting up the receiver and the
transmitter for communicating according to a second predefined field bus protocol if the
data does not comply with the characteristics (See column 8 lines 6-56, column 9
lines 40-61, and Figure 5A of Kostadinov for reference to detecting both a
Foundation Fieldbus protocol and a Profibus protocol by receiving a bus signal in
step 501, for reference to determining if the bus signal complies with a predefined
format and length stored in a table with the format and length uniquely identifying
a first one of the predefined field bus protocols in steps 505, 510, and 515, for
reference to setting up the actuator 120 to process signals according to the first
protocol if the bus signal complies with the format an length in step 520, and for
reference to setting up the actuator 120 to process signals according to the

second protocol if the bus signal does not comply with the format and length of the first protocol in step 520).

With respect to **claim 18**, Kostadinov discloses the data being received in data frames comprising a number of fields and the characteristics uniquely identifying frames of one of the predefined field bus protocols **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using the Foundation Fieldbus protocol and the Profibus protocol, which both send data in data frames comprising a number of fields and for reference to using the characteristics of received data frames to identify a field bus protocol)**.

With respect to **claim 19**, Kostadinov discloses the characteristics comprising the content of specific fields of the data frame **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using specific field contents of received Foundation Fieldbus protocol frames and Profibus protocol frames to identify the protocol of the received frames)**.

With respect to **claim 20**, Kostadinov discloses the characteristics comprising the length of a data frame **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using the length of a received signal to identify the protocol of the signal)**.

With respect to **claim 21**, Kostadinov discloses detecting the protocol based on more than one frame **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using multiple received bus signals to detect a protocol if the protocol cannot be identified based on the first received bus signal)**.

With respect to claim 22, Kostadinov discloses that the first protocol is Profibus

and the second field bus protocol is Foundation Fieldbus **(See column 8 lines 6-56 and**

Figure 5A of Kostadinov for reference to for reference to identifying both Profibus

and Foundation Fieldbus protocols).

With respect to claim 23, Kostadinov discloses using the content of the first

field in the data frame and the length of the data frame to uniquely identify a Foundation

Fieldbus protocol **(See column 8 lines 6-56 and Figure 5A of Kostadinov for**

reference to using the data of a first byte of a data frame and the length of the

data frame to identify a Foundation Fieldbus protocol).

With respect to claim 24, Kostadinov discloses the control data being a value

representing a measured physical value **(See column 4 lines 7-16 and column 5 lines**

21-25 of Kostadinov for reference to the sending and receiving signals

representing measured physical values, for example, a measured temperature,

pressure, flow rate, etc.).

With respect to claim 25, Kostadinov discloses the adapter comprising a means

for measuring the physical value **(See column 4 lines 7-16 and column 5 lines 21-25**

of Kostadinov for reference to the actuator 120 including a sensor 230 to measure

the physical value).

With respect to claim 28, Kostadinov discloses performing the step of detecting

and setting up only in an initialization phase before transmitting and receiving control

data via the field bus network **(See column 10 line 57 to column 11 line 11 and**

Figure 6 of Kostadinov for reference to only performing protocol detection as an

initialization procedure for the actuator 120).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Kostadinov in view of Allmond et al. (U.S. Pat. 5754552).

       With respect to claim 29, Kostadinov does not disclose periodically detecting

the protocol.

       With respect to claim 29, Allmond et al., in the field of communications,

discloses periodically detecting a protocol **(See column 16 lines 41-53 of Allmond et**

al. for reference to periodically monitoring, detecting, and updating an identified

protocol used by network devices). Periodically detecting a protocol has the

advantage of allowing a device to adjust to changes in the protocol used by a system.

It would have been obvious for one of ordinary skill in the art at the time of the invention,

when presented with the work of Allmond et al., to combine periodically detecting a

protocol, as suggested by Allmond et al., with the system and method of Kostadinov,

with the motivation being to allow a device to adjust to changes in the protocol used by

a system.

Response to Arguments

6.   Applicant's arguments filed 9/5/08 have been fully considered but they are not

persuasive.

        Regarding Applicant's argument that the invention disclosed by Kostadinov is

different from the claimed invention because Kostadinov does not disclose using a field

bus, as claimed, the Examiner respectfully disagrees. Applicant argues that Kostadinov

generally discloses detecting a bus protocol, but does not specifically disclose detecting

a protocol used by a field bus; however, it is clear from the specification of Kostadinov

that the protocols detected by the actuator 120 are typically used field bus protocols

such as Foundation Fieldbus, Profibus, FoxCom, or HART (See column 6 lines 1-22 of

Kostadinov), and Kostadinov further discloses a system environment that typically

employs the used of a field bus, i.e. an industrial system used to transmit measured

sensor data from devices over a bus to a controlling device (See column 4 lines 7-28

and column 5 lines 21-25 of Kostadinov). Kostadinov also explicitly disclose that the

bus used is a field bus (See column 11 lines 51-53 for reference to the bus being a field

bus). Thus it is clear that the bus disclosed by Kostadinov is a field bus, as claimed,

and the actuator 120 is equivalent to the claimed field bus adapter since it includes the

same components and performs the same functions as the claimed field bus adapter.

Regarding Applicant's argument the Kostadinov discloses protocol identification which is different from the claimed field bus protocol selection, the Examiner respectfully disagrees. First, it is pointed out that there is currently no claim limitation regarding "selecting" a field bus protocol, as argued by the Applicant. The claim limitations are directed towards detecting a field bus protocol being used and setting up a transmitter and receiver to communicate using the detected protocol. As shown in the rejections above, Kostadinov discloses receiving a bus signal in step 501, determining if the bus signal complies with a predefined format and length stored in a table with the format and length uniquely identifying only one of the predefined field bus protocols in steps 505, 510, and 515, and setting up the transmitter and receiver of the communication interface 201 of the actuator 120 to process signals according to the identified protocol if the bus signal complies with the format and length in step 520 (See column 8 lines 6-56, column 9 lines 40-61, and Figure 5A of Kostadinov). Further as discussed above, Kostadinov discloses these steps being performed in a system using a field bus, as claimed. Thus, Kostadinov does disclose all current limitations of independent claims 16, 26, and 30.

Regarding Applicant's argument that the amount of time or data needed by the invention of Kostadinov to detect a protocol is much greater than the invention disclosed by the current application, this argument is moot, since there is no claim limitation in the current claims regarding the amount of data or time needed to detect a protocol.

Regarding Applicant's argument that Kostadinov does not disclose detecting between two predefined field bus protocols as claimed in claims 17 and 27, the

Examiner respectfully disagrees. As discussed above, Kostadinov does disclose using

a field bus and thus does disclose detected between two predefined field bus protocols.

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JASON E. MATTIS whose telephone number is

(571)272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

                                                    Jason E Mattis
                                                    Examiner
                                                    Art Unit 2416

JEM
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